

AMENDMENTS TO THE CLAIMS

The following is a complete listing of revised claims with a status identifier in parenthesis.

LISTING OF CLAIMS

1. (Currently Amended) A ~~recording~~ computer readable medium having a data structure for managing reproduction of at least multiple reproduction path video data recorded on the ~~recording~~ computer readable medium, comprising:

a data area storing clip files of at least a video data stream, each clip file associated with one of a common reproduction path portion and a particular reproduction path portion of the video data stream; and

a management area storing management information for managing reproduction of the video data stream, the management information including an information file associated with each clip file, each information file providing a map for the associated clip file, each map mapping presentation time information to address information for the associated clip file.

2. (Currently Amended) The ~~recording~~ computer readable medium of claim 1, wherein the clip files are interleaved.

3. (Currently Amended) The ~~recording~~ computer readable medium of claim 2, wherein the clip files associated with particular reproduction path portions are interleaved between the clip files associated with common reproduction path portions.

4. (Currently Amended) The ~~recording~~ computer readable medium of claim 2, wherein the clip files have a size to prevent a reproducing apparatus buffer from under-flowing during reproduction of the clip files.

5. (Currently Amended) The ~~recording~~ computer readable medium of claim 4, wherein the clip files have a size to prevent the reproducing apparatus buffer from over-flowing during reproduction of the clip files.

6. (Currently Amended) The ~~recording~~ computer readable medium of claim 5, wherein more than one clip file is associated with a same one of a common reproduction path portion and a particular reproduction path portion when the one of the common reproduction path portion and the particular reproduction path portion includes data exceeding a clip file size to prevent the reproducing apparatus buffer from over-flowing during reproduction of the clip files.

7. (Currently Amended) The ~~recording~~ computer readable medium of claim 2, wherein the clip files have a size to prevent the reproducing apparatus buffer from over-flowing during reproduction of the clip files.

8. (Currently Amended) The ~~recording~~ computer readable medium of claim 7, wherein more than one clip file is associated with a same one of a common reproduction path portion and a particular reproduction path portion when the

one of the common reproduction path portion and the particular reproduction path portion includes data exceeding a clip file size to prevent the reproducing apparatus buffer from over-flowing during reproduction of the clip files.

9. (Currently Amended) The ~~recording~~ computer readable medium of claim 1, wherein the clip files have a size to prevent a reproducing apparatus buffer from under-flowing during reproduction of the clip files.

10. (Currently Amended) The ~~recording~~ computer readable medium of claim 1, wherein the clip files have a size to prevent the reproducing apparatus buffer from over-flowing during reproduction of the clip files.

11. (Currently Amended) The ~~recording~~ computer readable medium of claim 10, wherein more than one clip file is associated with a same one of a common reproduction path portion and a particular reproduction path portion when the one of the common reproduction path portion and the particular reproduction path portion includes data exceeding a clip file size to prevent the reproducing apparatus buffer from over-flowing during reproduction of the clip files.

12. (Currently Amended) A method of recording a data structure for managing reproduction of at least multiple reproduction path video data on a recording medium, comprising:

recording clip files of at least a video data stream in a data area of the recording medium, each clip file associated with one of a common reproduction path portion and a particular reproduction path portion of the video data stream; and

recording management information for managing reproduction of the video data stream in a management area of the recording medium, the management information including an information file associated with each clip file, each information file providing a map for the associated clip file, each map mapping presentation time information to address information for the associated clip file.

13. (Currently Amended) A method of reproducing a data structure for managing reproduction of at least multiple reproduction path video data recorded on a recording medium, comprising:

reproducing clip files of at least a video data stream from the recording medium, each clip file associated with one of a common reproduction path portion and a particular reproduction path portion of the video data stream; and

reproducing management information for managing reproduction of the video data stream from a management area of the recording medium, the management information including an information file associated with each clip file, each information file providing a map for the associated clip file, each

map mapping presentation time information to address information for the associated clip file.

14. (Currently Amended) An apparatus for recording a data structure for managing reproduction of at least multiple reproduction path video data on a recording medium, comprising:

a ~~driver for driving~~ an optical recording device configured to record data on the recording medium;

an encoder for encoding at least multiple reproduction path video data;
and

a controller for controlling ~~the driver~~ the optical recording device to record clip files of at least a video data stream output from the encoder in a data area of the recording medium, each clip file associated with one of a common reproduction path portion and a particular reproduction path portion of the video data stream, the controlling for controlling the optical recording device to record management information for managing reproduction of the video data stream in a management area of the recording medium, the management information including an information file associated with each clip file, each information file providing a map for the associated clip file, each map mapping presentation time information to address information for the associated clip file.

15. (Currently Amended)An apparatus for reproducing a data structure for managing reproduction of at least multiple reproduction path video data recorded on a recording medium, comprising:

a ~~driver for driving~~ an optical reproducing device configured to reproduce data recorded on the recording medium;

a controller for controlling the optical reproducing device ~~driver~~ to reproduce clip files of at least a video data stream from the recording medium, each clip file associated with one of a common reproduction path portion and a particular reproduction path portion of the video data stream, the controller for controlling the optical reproducing device to reproduce management information for managing reproduction of the video data stream from a management area of the recording medium, the management information including an information file associated with each clip file, each information file providing a map for the associated clip file, each map mapping presentation time information to address information for the associated clip file.

16. (New) The computer readable medium of claim 3, wherein only one clip file is associated with each particular portion representing a same time period of the video data stream.

17. (New) The computer readable medium of claim 16, wherein

the video data stream is represented by packets; and

each map maps presentation time stamps to packet addresses.

18. (New) The computer readable medium of claim 1, wherein
the video data stream is represented by packets; and
each map maps presentation time stamps to packet addresses.

19. (New) The method of claim 12, wherein the clip files associated with
particular reproduction path portions are interleaved between the clip files
associated with common reproduction path portions.

20. (New) The method of claim 12, wherein the clip files have a size to prevent
the reproducing apparatus buffer from over-flowing during reproduction of the
clip files.

21. (New) The method of claim 12, wherein the clip files have a size to prevent a
reproducing apparatus buffer from under-flowing during reproduction of the
clip files.

22. (New) The method of claim 13, wherein the clip files associated with
particular reproduction path portions are interleaved between the clip files
associated with common reproduction path portions.

23. (New) The method of claim 13, wherein the clip files have a size to prevent the reproducing apparatus buffer from over-flowing during reproduction of the clip files.

24. (New) The method of claim 13, wherein the clip files have a size to prevent a reproducing apparatus buffer from under-flowing during reproduction of the clip files.

25. (New) The apparatus of claim 14, wherein the clip files associated with particular reproduction path portions are interleaved between the clip files associated with common reproduction path portions.

26. (New) The apparatus of claim 14, wherein the clip files have a size to prevent the reproducing apparatus buffer from over-flowing during reproduction of the clip files.

27. (New) The apparatus of claim 14, wherein the clip files have a size to prevent a reproducing apparatus buffer from under-flowing during reproduction of the clip files.

28. (New) The apparatus of claim 15, wherein the clip files associated with particular reproduction path portions are interleaved between the clip files associated with common reproduction path portions.

29. (New) The apparatus of claim 15, wherein the clip files have a size to prevent the reproducing apparatus buffer from over-flowing during reproduction of the clip files.

30. (New) The apparatus of claim 15, wherein the clip files have a size to prevent a reproducing apparatus buffer from under-flowing during reproduction of the clip files.